



ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
EDITOR.

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Editorial Buzzings.

Disappointments and distresses
Oft to mortals will arise,
But they've frequently been proven
To be "blessings in disguise."

Then our aim should be to ever
Find the meaning hidden deep,
Under things that look so doubtful
When at first we at them peep.

Darkest clouds have silver lining;
Sorrow often brings sweet peace;
And experience—life's stern teacher—
From much trouble gives release.
—A. B. JINGLER.

Pure Water is a boon, and we are glad to know that a plan has been perfected whereby Waukesha water may be had on the World's Fair grounds at one cent a glass. A company owning one of the principal springs at Waukesha has been awarded the contract for furnishing the water, which will be piped from that place to Chicago, about 100 miles, and be served at 300 places on the Fair grounds. Plenty of Lake Michigan water will be obtainable free, of course.

Mr. R. Bacon, of Verona, N. Y., who has for many years been a prominent member of the New York State Bee-Keepers' Association, is now unable longer to care for his bees, and has disposed of his apiary. He is one of the pioneers of advanced bee-culture, and socially was a companion worthy of the name. In wishing us "good-by," he writes thus:

I am now almost 77 years old, and I have kept bees for more than 50 years. In the last 20 years they have averaged about 80 colonies. I have produced a great many tons of honey, but I never had any help in my bee-yard worth mentioning. I have alone done the work in all these years, down to the close of last season; at that time, on account of poor health, I came to the conclusion that I must part with my bees, and last month I sold all of them, 86 colonies, to one man. I think there is no man who has taken the AMERICAN BEE JOURNAL longer, or paid more money for it than I have. It has always been a welcome paper, and read with a good deal of interest.

We regret to part with an old friend, especially one so constant, firm and true as Brother Bacon has been. We trust that his future days may all be pleasant, and that he may live to enjoy many of them.

The Illness reported among apiarists, as well as others, is something appalling. In fact, almost every letter that comes to hand, adds new "tales of woe" to the already large stock heretofore reported. The latest is from J. W. Tefft, of Buffalo, N. Y., who says that *La Grippe* has laid a heavy hand upon him, but he is now improving.

Wm. S. Barclay, of Beaver, Pa., has been in very poor health for three months or more, and was unable to finish packing his bees for Winter, and this may result in a serious loss to him. He has had a partial paralysis of his arms and limbs, but is now reported to be convalescing. At the Centennial in Philadelphia, in 1876, he was one of the chief workers, and we spent many pleasant hours with him.

Grading Honey.—The committee appointed at Albany last month reported, and their grades for honey were adopted. Ex-President P.H. Elwood writes to us as follows about the report as published on page 77:

The original report was made in pencil and interlined, and it is not strange that a few words were omitted or changed. S. Cornell and J. M. Hambaugh, with others named, were on this committee.—P. H. ELWOOD.

The report of the committee was not in a condition to be placed into the hands of the printer (as stated by Mr. Elwood), and so it was re-written on a type writer before it came to this office. We printed it exactly as it came into our hands. As Mr. Elwood has kindly copied the original from notes, taken as a member of the committee, we cheerfully give that to the apirlists of the world. The first two paragraphs are the same as that published on page 77, with the addition of two words. The chief difference is in what followed them, as will be seen from a careful perusal of the following:

REPORT OF COMMITTEE ON GRADING
COMB-HONEY.

White honey shall be graded in two grades:

THE FIRST to be known in the trade as "fancy" or "fancy white," and to be marked "A." It shall be composed of well-filled sections of light-colored honies. One face of each section shall be perfect in appearance, fully sealed except the line of cells touching the wood. The other side of the section shall either be perfect in color and sealing, or nearly so.

THE SECOND GRADE shall be known in the trade as "fair to good white," and be marked "C," and shall be packed to meet the requirements of those desiring a good honey, but who care little for outside appearance. It shall be composed of honey thrown out of the first grade, irregular and travel-stained combs, sections not perfectly filled, but yet having but little unsealed honey.

THE THIRD GRADE shall be known as "mixed honey," and shall be composed of white honey chiefly, mixed with in-

ferior honey, including buckwheat and Fall flowers, and shall be marked "M." We advise that combs so badly stained as to show the color of saffron be also thrown into this grade.

BUCKWHEAT HONEY shall be packed by itself, and be marked "B."

Those bee-keepers sending to market boxes known as "pieces," shall put upon them a private mark of their own. This should also apply to honey-dew, and any other kind not falling in regular grades.

NOTE.—This report was made with the knowledge that bee-keepers usually stencil their honey with their full address, thus giving the State and locality in which the honey is produced, which is important in judging of quality.

The Ohio State Convention

is an important meeting, and should be well attended by the bee-keepers of Ohio, Indiana, and the South. Friend Muth writes us as follows about it:

The State convention at Cincinnati on Feb. 10-12, promises to be a good one if I may judge by replies to my invitations of a number of friends. A card from Dr. Miller, received this morning, says: "I'm coming." Friend Miller is "all right." The Central Traffic Association of Chicago will give us $1\frac{1}{2}$ rates of fare on all railroads leading to Cincinnati, providing we have 100 members here. Everybody buying his ticket for Cincinnati must pay full fare to Cincinnati, and ask the agent for a certificate for the Cincinnati bee-keepers' meeting. This certificate signed by the Secretary of the meeting will insure his return trip at the rate of $\frac{1}{2}$ fare. It will be positive on all branches of the Chicago, Hamilton & Dayton railroad, even if we have not 100 members. I shall state rates at hotels at the meeting.

The Golden Banded Italian

bees mentioned by R. D. Davis, on page 119, were from the apiary of S. F. and I. Trego, of Swedona, Ills., who are breeders of fine bees, and are also square dealers.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

Here is a Pattern for the Mayors of cities to emulate. On page 154 it is announced that ex-Mayor Ewing attended the meeting of the Wabash Valley convention of bee-keepers, and donated \$100 to the association, to be offered as Special Premiums for displays of bees and honey at the next Knox County Fair. Of course the action was "loudly applauded," and arrangements were at once made to obtain a grand exhibition.

Such liberality is quite refreshing, and furnishes a marked contrast to the narrow-minded, oppressive and cruel action of some Mayors we have had occasion to mention in these columns during the past few years. All honor to ex-Mayor Ewing!

Promises are plenty that at the next meeting of the State Board of Agriculture the bee-keepers shall have their proper proportion of the State appropriation for the World's Fair, but the matter seems to "hang fire" considerably. In order to facilitate matters, we would request every bee-keeper in Illinois, at once, to write to his member of the State Board, and see if we cannot bring the matter to a successful termination. The Board meets in February, so there is no time to lose.

The Union.—Concerning the officers for the coming year, Mr. Wm. L. Backensto, of Fort Logan, Colo., writes as follows:

I do not know as a change in the officers of the National Bee-Keepers' Union would be for the best interest of the Union, unless some prominent bee-keepers further West than any of those now holding office were numbered among the Vice-Presidents. I would suggest Mr. Eugene Secor, of Forest City, Iowa, as a candidate for one of the Vice-Presidents. The management, I think, should stay where it is as long as the Manager himself has not expressed a decided wish to be relieved. Of course there is (so to speak) such a thing as 'riding a free horse to death,' and I

know there must be considerable work attached to the office, and I think it would be no more than right that the Manager should receive some compensation for his labors. I also recognize the fact that I am a very new member, and know but little about a great many things pertaining to apiculture, and consequently should have but little to say, but, notwithstanding, the above management will suit me very well.

Colorado items of interest in the *Field and Farm* are as follows:

The bee-keepers of Weld County have formed an association with D. S. Beall as President, C. Adams Treasurer, and H. E. English Secretary. A meeting will be held in February next, when Prof. A. J. Cook, of the Michigan Agricultural College, will be present on his return from California. This organization represents about 2,000 colonies of bees.

The northern Colorado bee-keepers held a meeting on Dec. 24 last, at Longmont. H. H. Burch occupied the chair. It was decided that they form themselves into an association called the Excelsior Bee Association. The officers to consist of a President, a Secretary and Treasurer, also an Executive Committee. The annual meeting to be held on the first Wednesday in January of each year. Regular meetings to be held on the first Saturday of each month. The next meeting will be held on the 6th next.

Prof. Quick, of the Agricultural College, estimates that in Colorado there are at the present time 5,198 colonies of bees producing 782,753 pounds of honey annually. He places the increase of bees the last year at 2,000 colonies, with 200,000 pounds of honey to their credit.

We Congratulate Bro. Hutchinson upon the fact that he has now obtained a type-writer. No one will hereafter have to worry over his writing. The type-writer will make it all plain.

This is a "Convention Number" of the BEE JOURNAL. It contains reports of meetings of bee-keepers in four States, but they are very interesting, and will pay for a perusal.

Wisconsin bee-keepers should make arrangements to attend the eighth annual meeting of the Wisconsin Bee-Keepers' Association, which will be held in the Capitol at Madison, on Feb. 4 and 5. The convention will be called to order at 10 a.m., on Thursday, Feb. 4.

The convention occurs in the week the State Agricultural Society meets, and almost all will find something that will encourage and help in the work of the coming year.

There will be the usual reduction of railroad fare to those attending the meeting.

Dr. J. W. Vance, of Madison, is the Corresponding Secretary, and Mr. C. A. Hatch, a progressive bee-keeper, is the President. Those in attendance will learn all about the premiums to be awarded on honey by the association this year.

The following topics are among those that will be discussed: The Comparative Cost of Comb and Extracted-Honey—Bees on Shares—Increase of Combs—Out-door vs. Cellar Wintering—Out-door Protection in Spring—Mutual Rights of Bee-Keepers—Production and Sale of Honey—How Bees Gather and Distribute Pollen—What Branch of Fruit-Growing is Best Adapted to Combine with Bee-Keeping?—Hints on Marketing.

The following prominent bee-keepers are expected to be present and speak on the above topics: Ernest R. Root, Medina, O.; B. Taylor, Forestville, Minn.; Edwin Pike, Frank Wilcox, E. France, S. I. Freeborn, Frank McNay, and others.

World's Fair Items are always interesting to all—apiarists as well as others. We therefore give the following general information:

Jackson Park and Midway Plaisance—the Exposition site—are in the southeastern part of Chicago, and embrace 664 acres, with a frontage of about a mile and a half on Lake Michigan. Forty-five miles of boulevard connect

the site with the general park system of Chicago, which embraces fifteen or more parks, aggregating 2,000 acres.

Half a million dollars has already been expended in grading Jackson Park and dredging extensive waterways throughout it. Hundreds of thousands are yet to be spent for landscape gardening, fountains, statuary, pleasure boats, etc. A number of observation towers, from which excellent views of the buildings and grounds can be obtained, will be erected in different parts of the Park.

According to present plans fully 150 restaurants and cafes will be in operation in the various buildings and about the grounds. These will be conveniently distributed, and will have an estimated aggregate seating capacity of 6,000 or 8,000.

Midway Plaisance, connecting Jackson Park with Washington Park, will be occupied throughout its entire length by special Exposition features largely of a foreign character, such as the "Bazaar of All Nations," "Street in Cairo," "Street in Constantinople," "Moorish Palace," "Maori Village," etc., to which concessions have been granted, and which, in their production, will represent the expenditure of hundreds of thousands of dollars. Panoramas, cycloramas, the sliding railway, etc., will also be located there.

A single entrance fee, probably 50 cents, will entitle visitors to see the entire Exposition proper. The special attractions on Midway Plaisance will make a moderate additional charge.

Convention Notices.

The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomington, O.

HUMAN ENDURANCE.

FLORENCE PERCY.

How much the heart may bear, and yet not break!

How much the flesh may suffer, and yet not die!

I question much if any pain or ache
Of soul or body brings our end more nigh.
Death chooses his own time, till that is shown
All evils may be borne.

We shrink and shudder at the surgeon's knife,
Each nerve recoiling from the cruel steel,
Whose edge seems searching for the quivering life;

Yet to our sense the bitter pangs reveal,
That still, although the trembling flesh be torn,
This also can be borne.

We see a sorrow rising in our way,
And try to flee from the approaching ill;
We seek some small escape, we weep and pray;
But when the blow falls, then our hearts are still;
Not that the pain is of its sharpness shorn,
But that it can be borne.

We wind our life about another life;
We hold it closer, dearer than our own;
Anon it faints and falls in deathly strife,
Leaving us stunned and stricken and alone;
But ah! we do not die with those we mourn—
This also can be borne.

Behold, we live through all things—famine,
thirst,
Bereavement, pain, all grief and misery,
All woe and sorrow. Life inflicts its worst
On soul and body—but we cannot die,
Though we be sick and tired and faint and worn—
Lo, all things can be borne!

Queries and Replies.**Best Time of Year to Rear Queens.**

QUERY 803.—What is the best time of the year to rear queens?—T.

Spring, when drones fly.—DADANT & SON.

In this latitude, June.—J. M. HAMBAUGH.

During the Summer months.—G. M. DOOLITTLE.

From the time drones fly freely till the latter part of Summer.—J. E. POND.

In the Summer "time." It does not work well in cold weather.—A. B. MASON.

When the weather is warmest, and the honey-gathering greatest.—R. L. TAYLOR.

I should say May and June, but I have had only a limited experience.—C. H. DIBBERN.

When plenty of honey is being gathered. There are several good reasons why.—M. MAHIN.

"That depends." The person that knows enough to rear queens successfully, knows just when to do it.—H. D. CUTTING.

When the weather is warm enough to not to chill the brood, and when you have plenty of desirable drones flying.—J. P. H. BROWN.

The best time is during the honey season. With caution and wise planning and care, any time from May to September will do.—A. J. COOK.

I do not pretend to be authority, but I should think, for most breeders, the swarming season would be best.—EUGENE SECOR.

That depends upon your locality. When the bees do such work is the best, all things considered.—JAMES HEDDON.

During a good flow of honey; usually swarming time. Last year (1890) little, miserable "nubs" of queen-cells were built; this year (1891), fine large ones.—MRS. L. HARRISON.

I suspect that generally the bees queens are reared at the time of natural swarming, but if conditions are made right, I do not see why they might not be reared any time.—C. C. MILLER.

With our improved methods of rearing queens, whenever it is most convenient during the active working season. It is not easy to rear good queens before swarming time.—G. L. TINKER.

The best time to rear queens is during the swarming season. But you can rear just as good queens after the swarming season is over, by feeding the cell-building colonies until they feel rich—see? That is the way I do it, when I want to rear queens all Summer.—G. W. DEMAREE.

Queens may be reared at any time during warm weather. The "best time" is probably when the swarming is on, or when honey is coming in freely—but an experienced queen breeder can make the proper conditions at any suitable time.—THE EDITOR.

Topics of Interest.

Michigan State Bee-Keepers' Convention.

GEO. E. HILTON.

(Continued from page 115.)

The following is the essay read by Mr. R. L. Taylor as the

President's Address.

Another year has come, scattering its blessings where it listed, and is gone; and whether it has favored us as we had hoped and desired or not, we may well look, and in no complaining spirit, to discover, if we may, by what rule its largesses have been bestowed, and why our expectations have not been met.

To the country at large its bounties have been unexampled, but to those who pursue that vocation which this convention is met to promote, they have been, we will pretty generally agree, in one point at least, rather meagre. But are we altogether right in our estimate? Are we not too much given to cultivating a feeling of disappointment, that we do not get a heavy crop, rather than to accept an average crop with gratification, or to make the most of a small crop?

Relatively we have of course had a bad year; some have even had no surplus at all, but on the average has the year been necessarily an unprofitable one? I say necessarily, because sometimes one has notions of the profitable character of the venture he is about to engage in, so elevated that he wastes sufficient to make a fair profit.

Once, many years ago, a craze for the production of hops took possession of the farmers in a certain locality near where I lived. Prices were high, the crop in their estimation certain, and so they were impressed with a certainty that inevitable wealth must fall to every one engaging in hop raising. Then naturally the absolute certainty of coming wealth ushered in a feeling that it was already in possession, at farthest the gold was only over the fence in the soil of the hop field, and a little plowing and harrowing in the Spring would secure it, so they were already wealthy, and acted on the assumption. No effort was made to secure a line of retreat. Victory was sure.

Extravagance in the building of hop houses, in laying in supplies for the

packers, and for the handling, weighing, drying and packing of the hops, ruled the hour. But the storm came. Insects infested the hops, the quantity, quality and price were all lessened, and bankruptcy overtook well-nigh all of them.

The same thing is illustrated by numerous instances in the pine lumber business. High expectations obscured the necessity of care and economy, and waste kicked the profits out-of-doors, and let in disappointment and failure.

Ruminating upon these things in connection with the business of honey production, the idea suggested itself that perhaps our notions of the status of bee-keeping, with respect to profits and necessary expenses, need readjusting, and that the present series of bad years would be a good time to consider the subject.

It may be, I thought, that we are risking a chance of failure by encouraging fanciful prospects of success which are much too highly colored, so that we become content to calculate that though by the spending of time in the useless manipulation of the bees, and by the purchase of elaborate lines of machinery and supplies, we make the cost of comb-honey 12 or 14 cents, we may yet be sure of a crop large enough so that the difference between those figures and the selling price will yield a good profit. I do not question the prospects of profits in fair seasons with good management, but I wish to call attention to the danger of putting too much reliance on the profits, trusting that they will carry us through, no matter what the seasons are or to what a high point we run expenses.

If one practices proper economy, and thereby keeps expenses down to the lowest reasonable point, he has still no bonanza, to be sure, but a safe, comfortable business. The criterion of expenses should be actual needs, not what it is supposed the business will bear. If we make this latter the test, as the majority are greatly inclined to do, we are all sufficiently optimistic to fall into the fatal error of putting the average yearly production too high, and as a consequence to encounter failure in the end.

Mr. G. M. Doolittle has said that, if capital and labor get their due reward, the cost of comb-honey is 13 cents per pound. It would be interesting to know how he arrived at his conclusions. Did he take the average of the seasons as they are, with him, as a basis? In that case, as the seasons with him average better than with bee-keepers generally, to them the cost would be even greater than to him. Then I would like to know

how much of the cost is labor, and how much capital. Maybe he is extravagant with labor.

Not long since, if I remember correctly, he gave it as a reason why he preferred a hive whose frames required handling to one which could be handled in two sections, to accomplish the same purpose, that he enjoyed handling the frames—that he got his pay in fun. It may be that Mr. Doolittle, and some other bee-keepers, may grow fat on fun, but I am pretty sure that our wives and children will not grow fat on the fun that we alone enjoy.

We may well enquire, too, whether he figures in this kind of labor to make up the 13 cents cost, and so is contriving to get full pay from each of two sources. At all events it requires no argument to show that it would not do to permit the cost of honey to reach 13 cents per pound. If it were a necessity to permit it, but few of us would remain in the business.

There is no one but will admit that we should keep the cost down to the lowest possible point, and all would be glad to know what that point is. Of course there must be no extravagance in buildings nor in supplies, and there must be no loss of valuable time.

I have made and submit tentatively some estimates which may at least serve as a stimulus to further calculations, as well as a conclusion to the suggestions I am making. For my figures I have taken 150 colonies as perhaps the average number that could profitably be kept in one place. The expense is made up of what may be called the fixed charges, i. e., those that are the same whether the crop is large or small, and the variable charges, which are made up of those expenses which vary with the amount of the crop. The larger the crop the less of course the cost per pound, and my figures are made so as to bring this out somewhat in detail:

I estimate the value of the necessary plant as follows:

Shop and cellar.....	\$ 300 00
Tools, cases and extras.....	150 00
150 colonies bees at \$5.....	750 00

Total\$1,200 00

So my table will stand thus:

FIXED CHARGES.

Interest and wear and tear on plant at 10 per cent.....	\$120 00
One man six weeks during honey harvest.....	45 00
Taking bees into and out of cellar.....	5 00
Other manipulations.....	5 00

Total.....\$175 00

VARIABLE CHARGES.

Cost per each 1,500 pounds of surplus, being an average of 10 pounds:

2,000 sections.....	\$ 7 00
Foundation.....	10 00
Fastening in foundation.....	1 00
Putting up sections.....	1 00
Crates for packing honey.....	10 00
Packing.....	4 00
Commissions and freight.....	17 00

Total.....\$50 00

Total cost of a crop of 10 pounds on the average, or 1,500 pounds, \$225.

For each additional average of 10 pounds there must be added \$50, whence we get the following results:

Average per colony—lbs.	Aggregate lbs.	Aggregate cost.	Cost per lb.
10	1,500	\$225	.15
20	3,000	275	.0916
30	4,500	325	.072
40	6,000	375	.0625
50	7,500	425	.056
60	9,000	475	.052
70	10,500	525	.05

Taking 15 cents as the market price, a further step gives us the net profit in each case, as follows:

Total crop lbs.	Price.	Total value.	Total cost.	Net profit.
1,500	15c.	\$ 225	\$225	
3,000	15c.	450	275	\$ 175
4,500	15c.	675	325	350
6,000	15c.	900	375	525
7,500	15c.	1,125	425	700
9,000	15c.	1,350	475	875
10,500	15c.	1,575	525	1,050

These figures are far from discouraging, but they speak powerfully for keeping expenses down. In an average location, one who spends 365 days in the year on 150 colonies, cannot expect to get rich; but by making six or seven weeks do, he can make his investment pay well, the difference in the number of colonies in different apiaries, the presence of buildings or cellars that can be used without expense of making special buildings and cellars, and the difference in average yields in different localities makes a great difference in the net cost of honey; yet though our circumstances vary greatly in many ways, we can, nevertheless, by severally calculating the cost in our respective cases, assist one another in putting the business on a more stable basis than it has hitherto occupied.

R. L. TAYLOR.

FIRST DAY—EVENING SESSION.

W. Z. Hutchinson read the following essay on

Trying New Things.

Bee-keepers are considerably given to the trying of new things. A new hive

a new variety of bees, a new smoker, or even a new queen-cage is no sooner announced than bee-keepers are ready, some of them eager, to invest their hard-earned dollars.

To a certain extent this may be an evidence of enterprise in another way. It might be called an exhibition of folly, in believing that all new things are best.

We live in a fast age. An invention is no sooner made than it is improved upon. It is folly for the bee-keeper, or any one, to ignore these advances. It is only by the use of the *best* that a man can hold his own, in these days of close competition. But in the great mass of new things continually spread out in a tempting way, a man must choose wisely, or the expense and loss of time will outweigh the gain.

To an experienced bee-keeper, a description of an article is often all that is needed, to enable him to decide whether or not he wants it. Sometimes the article is of such a nature that it is impossible to decide in regard to its merits without an actual trial. The bee-escape is an illustration.

Again, an implement may be correct in principle; yet will work only under certain conditions not easily describable; hence, nothing should be accepted nor rejected upon insufficient trial. One of the "besetting sins" of bee-keepers, is that of jumping at conclusions. New things should be tried upon a sufficient scale, and for a sufficient time to be of some value.

New things are often extravagantly praised, particularly by those interested in their sale and introduction. There is always *somebody* ready to try new things, hence it is usually well to await favorable reports from disinterested parties.

But when new things are tried, as I said, let it be on sufficient scale to be of some value, but not upon a larger scale than failure can be afforded.

Upon the recommendation of interested parties, some have introduced new varieties of bees into their apiaries, only to bitterly repent of the act. The trial of a new variety of bees, even upon a small scale, is liable to introduce a taint of blood that it will take years to eradicate. If new varieties of bees are tried, let drone-traps be faithfully used, and the new variety not be allowed to mix with the other bees.

Upon this point of trying new things, I think the old saying in regard to the adoption of fashions in wearing apparel

is quite pat. I cannot quote it exactly, but the idea is:

Be not the first to wear the new,
Nor the last to lay aside the old.

In closing, I might say that the patenting of an article puts a check upon its too hasty adoption. If a man must pay even so small a sum as \$5 for the privilege of making and using an article, it induces him to more thoroughly investigate before adopting it.

On the other hand, a few are prejudiced against patents, and spend their time, money and energy in trying to see how near they can make something like the patented article, and yet evade the patent.

W. Z. HUTCHINSON.

President Taylor thought Mr. Root should know something of the new things; both patented and unpatented.

Mr. Root said he had started some things, and some of them had proven failures, and that the views of the Root establishment was considerably modified in regard to patents.

President Taylor thought that many of the new things could be tried with, or in, the mind. He had decided, without trial, that he wanted no self-hiver in his yard. The objection to the self-hivers was the preparing of all colonies, when as a rule we had only one swarm from 3 colonies. He thought that a queen-catcher or trap was preferable to a self-hiver.

Apicultural Discussions.

A. J. Acker described a swarm-catcher made of a wooden rim, covered with wire cloth, that had been successful with him.

President Taylor asked who had tried the bee-escapes?

W. Z. Hutchinson had tried about a dozen successfully.

J. P. Berg had found them a success in comb-honey supers, but they had not been a success with extracted supers. They worked better with him if put on in the morning, rather than in the evening. The bees also left them better when the nights were cool.

J. H. Larrabee thought the escape most valuable in working for extracted-honey, as it prevented robbing, and facilitated the handling of the combs.

M. H. Hunt said that the advantages of escapes with comb-honey was that they avoided the biting of the cappings.

R. E. Ashcraft had tried them on about a dozen colonies, and they had proven a success. The bees were practically all taken out, and the cappings were not molested.

Capt. Wray was a beginner, but had removed honey by setting a small tent over the cases, and clearing them of bees.

E. R. Root wanted to know about the new races of bees.

M. H. Hunt said that he had a yellow Carniolan queen, but had lost her. He then placed a nest of bumble-bees in the cage and placed them on exhibition. These were what some reports said that he paid \$80 for.

E. R. Root said they had one Cyprian colony, and they drove the whole family out of the yard. He said there was another new thing, yet old—that of putting starters in sections with a heated metal, and described a machine which they now have for doing it.

Cellar vs. Out-Door Wintering.

A. J. Acker said that he had not found time to prepare an essay, but remarked that he commenced with out-door wintering, packed in chaff, and, while it was not a failure, it was not satisfactory, and he now wintered his bees in the cellar.

J. P. Berg believed that he had as good a cellar as could be made. He wintered some of his bees in the cellar and some in chaff hives out-doors, and while he has never lost a colony out-doors, he invariably lost some in the cellar. His experience was that those wintered in chaff hives were always ready for the honey-flow early in the season. The protection of the chaff hives enabled them to build up faster than those in single-walled hives. His bees wintered in the cellar would dwindle on being brought out in the Spring, while those wintered out-doors were building up.

President Taylor and others gave their plans for carrying bees into the cellar. Fixed frames were a great help in the handling of hives.

E. R. Root said that they had lost less bees by out-door than by cellar wintering.

J. H. Larrabee thought that the temperature in Vermont was lower than it was in Michigan, but he wintered bees in chaff hives successfully.

M. H. Hunt had always wintered his bees in chaff hives, with one exception, and then he had to buy a new stock in the Spring: he had not tried it since.

Adjourned to 8 a.m.

MORNING SESSION—JAN. 1.

After wishing one another "A Happy New Year," the next topic was taken

up, beginning with the following essay by Wm. E. Gould:

What Business Can be Profitably Combined with Bee-Keeping?

The title of my essay is a question that is often asked, and seldom answered satisfactorily. I can but little more than give my opinion upon the matter, but that opinion is based on several years' experience.

The first thing to consider is *the man* who is to carry on this business. More depends upon the man than on anything else.

I suppose that friend Hilton had something like this on his mind when he gave me this subject: What business may a successful bee-keeper combine with bee-keeping, and thereby increase his income? Hence, I shall not dilate upon human nature or psychological conditions. We will take it for granted that a successful bee-keeper may successfully perform the work of any other business, for which by education he has the requisite talent. Then the question resolves itself into what business combined with bee-keeping will allow the proper division of time?

Even here we must stop and consider the different conditions as regards bee-keeping, which our imaginary questioner may be in. There are three conditions: 1. Having only a few colonies; 2, having a full apiary; 3, having two or three full apiaries.

To one who is in the first class, I should say you are not combining some other business with bee-keeping; but rather, bee-keeping with some other business. Perhaps you ask, why this distinction? The question which I am to answer presupposes that bee-keeping is the principal occupation, at least during the honey season.

To answer the question, means that we must name some trade or business which will allow this to be possible; or rather, some work which will not require much attention at the time when the bees require attention.

To those who own two or three apiaries, I would say, increase until you have enough bees to keep you busy during the whole year.

But to those who possess only one apiary, this becomes an important question.

To one who resides near a railroad station, and who has the requisite skill and means, the supply business may be profitably combined with bee-keeping. A long article might be written on this

subject alone, and I will leave it for you to discuss.

Friend Hilton can tell us whether mason work, carpenter work, etc., can be profitably combined with bee-keeping. What will apply to one will also apply to the other.

Whether mercantile or professional work may be combined with bee-keeping I cannot say, but I am of the opinion that they would conflict—although bee-keeping on a small scale might be combined with them, and pay large dividends in the shape of improved health.

There are three things which I believe may be combined with bee-keeping, namely: Fruit culture, poultry and teaching. With fruit culture there are two objections. The first is that the fruit often needs attention just at the time that we should be busy with the bees. The second is that the Winter months are not provided for in either case. Still an energetic, skillful man may combine fruit culture with bee-keeping, and thus add to his profits.

At present prices for eggs and poultry, there is no doubt that poultry raising may be a source of profit; and certainly it will not conflict with the needs of the bees.

Of teaching, I can speak from several years' experience. I have had no trouble in devoting nine months of each year to teaching. To be sure, the last two seasons have not been a source of profit from the bees; but that is no fault of the teaching. We may work to the best advantage when the school and apiary are in the same neighborhood. When they are in separate localities, only the Fall and Winter months can be devoted to teaching, unless you are blessed with women folks or children who can attend to the needs of the bees. My mother and wife are as competent to care for the bees in swarming time as I am, and perhaps that is why teaching and bee-keeping fit each other so nicely in my case. In addition to the regular apian work, I have built up quite a local supply trade.

In conclusion allow me to say that the best thing to combine with bee-keeping is perseverance. WM. E. GOULD.

J. P. Berg—I make my other business pay for my bee-keeping. My principal business is fruit raising, and it often helps out the bees. I find the fruit bloom a great help to the bees, and together they give me Winter employment in preparing for the coming season.

L. C. Woodman said that he was engaged extensively in fruit raising, and found it more profitable than bee-keeping.

H. D. Cutting found that there was more money in poultry raising, and it did not conflict with bee-keeping. A friend of his had 1,200 ducks, and as he was located two miles from water, he kept them in his orchard, and found them very profitable.

Mrs. Della Croope had found gardening, on a small scale, a success. She held her produce and disposed of it during the Winter months. Mrs. Croope was having trouble with dead brood, the brood died after the wings were formed, and all had their heads towards the center of the combs. The brood remained white, and after it became partially dried up, the bees carried it out. The cause could not be definitely settled, but Mr. Larrabee promised to visit the apiary in the Spring to get specimens, make an examination at the college, and report the results.

The Next Place of Meeting.

Invitations were received from Brighton, Detroit, Battle Creek, Flint, Lansing and Allegan. Lansing was selected on the first ballot.

The election of officers resulted as follows:

President—Hon. R. L. Taylor, Lapeer.

Vice-President—J. H. Larrabee, Agricultural College.

Secretary—Geo. E. Hilton, Fremont.

Treasurer—M. H. Hunt, Bell Branch.

Foul-Brood.

Dr. A. B. Mason not being present, the matter of foul-brood was discussed. It was thought best, if only one or two colonies were affected, to burn them, hives and all; but it can be cured by shaking the bees into new hives on full sheets of comb-foundation.

Bees, Poultry and Fruit.

J. A. Pearce said that he had been sick, and was unable to prepare an essay. He gave us a very pleasant talk, which was followed by discussions. During the discussion, the following telegram was received:

AUBURNDALE, O., Jan. 1, 1892.
Michigan State Bee-Keepers' Association:
Grip has me. No foul-brood. Happy
New Year to all. A. B. MASON.

J. S. Warner asked to have the matter of "spraying" brought up.

J. A. Pearce said that his neighbors sprayed their trees while they were in full bloom, as directed by the pump manufacturers, and his apiary was nearly ruined. It killed both the old bees and brood.

J. H. Larrabee suggested that the poisoned bees be sent to the college, and they would analyze them, and if poison was found in them, it would be a help to the committee on legislation appointed at Albany in getting a law passed to prevent the spraying of trees while in full bloom, inasmuch as it did no good to spray until after the fruit had set.

The Use and Abuse of Foundation.

The intelligent use of comb-foundation has added largely to the pleasure and profit of bee-keeping, and its importance is second only to the movable-frame. The first practical foundation was made in 1874, and the demand has increased so rapidly that at times since it has taxed the world for sufficient beeswax for its production.

In 1878 Prof. Cook said: "We can hardly conceive what an immense business this is soon to become."

During the first years of its introduction, the lack of experience and proper machinery caused a large proportion of poor comb-foundation to be sent out; still it did not seem to affect the demand.

With the fine machines, and the really scientific manipulation of the wax, by the best manufacturers now, there seems little left to improve on. Several attempts have been made to make comb with full depth of cells, but so far they have all been failures, as, no doubt, they always will be. The great bulk it would make, the extra expense, and the greater amount of wax necessary to its construction, all combine to make it undesirable.

Being a manufacturer of comb-foundation, I have been much interested in anything pertaining to it, which has led me to experiment considerable, testing, each season, theories of my own, and the suggestions of others. The results have convinced me that locality, season, and manner of using has so much influence that no two experimenting alike will arrive at the same conclusions.

In my use of foundation in the brood-frames I have been most pleased with full sheets of light brood in wired frames. There is only wax enough, in this grade, to draw out the cells a trifle, giving the bees a chance to utilize the natural secretions of wax that is sometimes lost. Nice, straight, all-worker

combs are secured in this way at little expense. Full sheets give more bees a chance to operate, making them less liable to cluster and secrete wax that may be wasted.

By the use of starters only in brood-frames, perhaps the bees will enter the sections sooner, storing a greater proportion of their honey there; but that is not always an advantage. The bees must have a certain amount to winter on, and if forced to put their stores above, and the flow ceases about the time the sections are completed, it necessitates feeding for their winter supply. With the average bee-keeper, this is neglected sometimes altogether, or until it is too late.

If the queens are not young (and with the first swarms they are not), there will often be drone-comb enough in one hive for the whole apiary.

At first the use of foundation in the sections was looked upon with considerable alarm, but it has grown steadily into favor, until it is now used by nearly all bee-keepers.

Filling the sections full, gives the best results, as it insures better fastening, increases the yield, and adds to the appearance.

Where small pieces of foundation only are used, the work starts but slowly, as a large proportion of the bees have to wait for the increase of surface to operate on. One day is quite a loss during the best of the yield, as the flow we secure our crop from is short at best.

The principal abuse of foundation is the careless manner it is often put into the brood-frames and sections, the sheets falling down, making them worse than useless.

In fastening it in the brood-frames, the sheets are cut to exactly fit the frames, and then the wires are pressed in; then run melted beeswax and resin around three sides. Put in this way, they will do to hive full swarms, or will stand for shipment. To put the melted beeswax and resin on, use a spoon, bent up so as to form a spout on the end; then hold up the frame, and pour so the stream will run around where the comb and frame should join, pouring only sufficient to keep it running, until finished. Never use any resin in putting foundation in sections, as it is almost sure to impart its flavor to the honey.

I have tried a good many devices for fastening the comb in the sections, but a common Parker fastener is better than anything I have yet found.

M. H. HUNT.

J. H. Larrabee asked: Is it right to advise beginners to use full sheets of foundation? This was answered yes, if it is well wired.

Adjourned to 1 p.m.

AFTERNOON SESSION.

J. A. Pearce—Which is preferable, full sheets or starters in sections? The voice of the convention was in favor of using full sheets.

Carniolan Bees.

H. D. Cutting gave us a short address showing his preference for the Carniolans. Very few had experience with them.

List of Members.

R. L. Taylor, Lapeer.
J. H. Larrabee, Agricultural College.
Geo. E. Hilton, Fremont.
M. H. Hunt, Bell Branch.
J. A. Pearce, Grand Rapids.
A. J. Thompson, Grand Rapids.
L. C. Woodman, Grand Rapids.
D. G. Durphey, Grand Rapids.
A. W. Slayton, Grand Rapids.
O. H. Townsend, Alamo.
Capt. Wray, Factoryville.
J. S. Warner, Grandville.
F. W. Wunsch, Lowell.
R. E. Ashcraft, Brookside.
J. P. Berg, Traverse City.
R. D. Parker, Climax.
A. J. Acker, Martiney.
Jacob Moore, Ionia.
J. B. Wilcox, Manistee.
W. Z. Hutchinson, Flint.
C. E. Kelley, Lisbon.
H. J. Kusig, Ravenna.
C. E. Cook, Starville.
Julius Tomlinson, Allegan.
H. D. Cutting, Clinton.
Mrs. Della Croope, Fowlerville.
Mrs. L. C. Woodman, Grand Rapids.

Resolutions.

The Committee on Resolutions reported the following, which was unanimously adopted:

Resolved, That the thanks of this association are due, and are hereby tendered to its officers for the efficient manner in which they have conducted this convention.

To Geo. E. Hilton, for his ardent and unselfish efforts in insuring the success of this meeting.

To the proprietor of the Eagle Hotel, for his many courtesies, especially for so kindly providing, free of charge, such

an excellent room in which to hold the convention.

W. Z. HUTCHINSON,
A. J. ACKER,
C. E. KELLEY.

Articles on Exhibition.

The following articles were on exhibition:

Honey-jam and frame—M. H. Hunt.
Smokers and honey-knife—T. F. Bingham.

Tool box, etc.—Mr. Wilson, of Manistee.

Hive—Julius Tomlinson.

Foundation fastener, roller—A. J. Acker.

Section former and foundation fastener combined—Mr. Pearce.

Epilobium honey—Geo. E. Hilton.

Sections—O. H. Townsend.

Statistics.

* Those handing in reports, gave the following results:

Number of colonies, Spring count, 1,275; in the Fall, 1,490; Italians, 908 colonies; hybrids, 582; wax, 470 pounds; comb-honey, 9,587 pounds; extracted, 7,662 pounds; colonies on Langstroth frames, 848; on odd frames, 470; wintering in cellar, 692; outdoors, 500.

As many of the friends wanted to leave on the 3 p.m. train, the remainder of the time was given to social talk, and I think all went away feeling that they had had an enjoyable time.

GEO. E. HILTON, Sec.

Indiana State Convention.

WALTER S. POWDER.

According to programme, the twelfth annual meeting of the Indiana State Bee-Keepers' Association convened at the rooms of the State Board of Agriculture, on Jan. 8, 1892, with President E. H. Collins in the chair.

On account of the inclemency of the weather, the members came in slowly. The officers were all present except Secretary Thompson, who was obliged to remain away on account of sickness, and Walter S. Powder was chosen to act as Secretary *pro tem*.

After some preliminary work, the society got down to business, and Pres E. H. Collins delivered a very interesting address. He claimed that the honey crop of the past season was about two-thirds of any average yield, but that the

honey was of finer quality than usual; that the market was not overstocked, and that prices were fairly good; that the Fall flow had been satisfactory, and that there was no foul-brood in the State. He also gave the following interesting statistics for the State:

Colonies of bees living, in 1889.....	127,958
Colonies of bees dying, in 1890 & 1891.....	34,736
Pounds of honey produced in 1889.....	737,471
Colonies of bees in 1890.....	137,000
Pounds of comb-honey, in 1890.....	936,878
Pounds of extracted-honey, in 1890.....	107,876
Total number of pounds.....	1,043,000
Excess of colonies over 1889.....	9,045
Excess of pounds of honey over 1889.....	306,205

Mr. Collins spoke of the importance of our industry being well represented at the Columbian Exposition, and the association passed the following resolution:

Resolved, That it is the opinion of this body that the bee-keepers of Indiana should make an exhibit at the World's Columbian Exposition in 1893, and that a committee of three be appointed to act in conjunction with the Indiana Board of World's Fair managers, in carrying out the plan and scope of such exhibit.

In accordance with the resolution, R. S. Russell, W. S. Poulder and E. H. Collins were appointed such committee.

Chas. F. Muth, of Cincinnati, read an essay on "Winter Protection." His strong argument was to have an abundance of stores within easy reach of the cluster, a dry habitation and strong colonies; no chaff hives or cellar wintering for him. He uses the 10-frame Langstroth hive. In October or November the surplus arrangement is removed, also two or three of the lightest combs from the brood-chamber, then the cluster is divided by removing the remaining combs toward the sides of the hive, and the vacant space is filled with combs containing honey.

Mr. Muth's essay was fully discussed as to what is best for covering the brood-chamber in Winter. It was generally believed that boards were better than anything, although a straw mat, sawdust or a chaff cushion on the top of the boards is beneficial. Any upward ventilation is not desirable, especially when chaff cushions are used, from the fact that the difference in temperature makes them act as a condenser, thus they become wet and cold. To have a two-inch space under the brood-frames in Winter was thought to be of no particular importance in wintering on the summer stands, especially if the hives are inclined forward, and the entrances left wide open. To overhaul the bees in

the Spring, and place combs containing honey next to the cluster, is superior to stimulative feeding.

G. P. Wilson, of Toll Gate, Ind., read an excellent essay on "Fall Management," which was freely discussed, and many valuable hints were given to the uninitiated. Special stress was placed on the importance of a good queen. It sometimes happens that, after the honey-flow is over, the queen is exhausted, having worked as hard in her capacity as the workers have in theirs, but it was generally agreed that it is best to let the queen alone, as long as she shows no signs of failure. Summer is the time to make sure that they have a good young queen. In the Fall, be sure that they have an abundance of young bees, and a good supply of Winter stores, consisting of honey, or syrup made of granulated sugar.

R. S. Russell, of Zionsville, gave a report of the past season in a way that showed his deep interest in the work. Mr. Russell had learned: 1. That it pays to rear your own queens. 2. A pound of sugar fed to the bees at the proper time will be paid back in at least two pounds of honey. 3. That it pays to equalize the bees throughout the yard previous to the honey season. 4. The best way to exterminate moth is to keep the colonies in a strong and vigorous condition. 5. A good wife is the best helpmate in the apiary. He reported 110 colonies in good condition, and gave figures in showing that the past season had been a profitable one; his bees having averaged about 70 pounds to the colony.

Walter S. Poulder, of Indianapolis, read an essay on "Hindrances to Bee-Culture." The principal points brought out were the importance of economy when embarking in the business—experience is of vast importance to become a successful bee-keeper. In the discussion which followed, several related their blunders, some of the instances being quite comical.

W. S. Poulder talked on how to get bees out of sections, by the use of the Porter bee-escape. It should be placed in position in the evening, and the following morning the honey can be removed without smoke, and without having the cappings gnawed by the bees.

For smoker fuel, E. H. Collins preferred building paper, rolled into a loose cylinder.

R. S. Russell preferred dry corn-cobs.

W. S. Poulder used soft, decayed wood to start with, and then filled the smoker with hard wood.

N. J. Master, of Amo, Ind., made plain his method of transferring from box-hives.

W. S. Pouder demonstrated the importance of having straight combs, and that, year after year, the master of the bee-yard should improve his colonies by cutting out drone-combs and crooked combs, and replacing with comb-foundation. That the solar wax-extractor is a necessity in a well-kept apiary, it being just the thing into which to shave off the cappings, when extracting, etc.

Joe Meyers, of Gray, Ind., gave an excellent talk on "Summer Management." His method was of especial interest to beginners, as he used a 10-frame Langstroth hive to make the demonstration clear. He used a division-board feeder made large enough to contain a float.

President Collins delivered an address on "The Anatomy of the Honey-Bee," which showed that Mr. Collins had been a close observer.

Mr. Manford led a discussion on "The Extractor, and How to Manipulate It." He used the 10-frame Langstroth hive, tiered three stories high, the first and second stories being used for brood. Once in twelve days he thought was often enough to extract.

The committee consisting of R. S. Kitley, R. S. Russell and J. P. Wilson, appointed to nominate officers for the coming year, reported the following, and they were elected:

President—R. S. Russell, Zionsville, Ind.

Secretary—J. P. Wilson, Toll Gate, Ind.

Treasurer—Walter S. Pouder, Indianapolis, Ind.

First Vice-President—Chas. F. Muth, Cincinnati, O.

Second Vice-President—Joseph Myers, Gray, Ind.

Third Vice-President—N. J. Master, Amo, Ind.

Indianapolis, Ind.

Wabash Valley Convention.

FRANK VAWTER.

The Wabash Valley Bee-Keepers' Association convened at the Mayor's office on Thursday, Jan. 7, 1892, in the afternoon. There was a good attendance, and an interesting session. A constitution and by-laws were adopted, and officers for the next year elected as follows:

President, Albert Wittenmeyer, Elmsion, Ind.; Vice-President, S. D. Cox, Washington, Ind.; Secretary and Treasurer, Frank Vawter, Vincennes, Ind.

The afternoon was spent in lively discussion about bees, queens, hives, supers, and other topics of interest to honey-producers.

Ex-Mayor Wm. S. Ewing was loudly applauded when he announced that he would donate \$100 to the association to be offered as special premiums for bee and honey displays at the next Knox County, Indiana, Fair. Messrs. Ewing and Wittenmeyer were appointed a committee to confer with the managers of the Agricultural Society on the subject of space, exhibits and premiums at the next Fair. It is the opinion of the bee-keepers that the managers of the Fair can be induced to offer liberal premiums and pay more attention to the bee-products in the future. The next bee-keepers meeting will be held on the afternoon of Tuesday, March 1, 1892.

A vote of thanks was extended to the Mayor, the *Sun*, *Commercial*, and Ex-Mayor Ewing, for favors shown.

The Secretary was instructed to furnish for publication notes to the *Commercial* and *Sun*, to *Gleanings*, *AMERICAN BEE JOURNAL*, and *Review*.

FRANK VAWTER, Sec.

California State Bee-Keepers' Convention.

JOHN H. MARTIN.

The Southern California Bee-Keepers' Association assembled in Los Angeles at 10 a.m. on Jan. 6, 1892. The President and Secretary both being absent, Vice-President McIntyre called the meeting to order, and Mr. J. W. Ferree was chosen Secretary *pro tem*.

About 50 bee-keepers responded to the call, and among the number was Prof. A. J. Cook, Professor of Entomology in the Michigan Agricultural College, and author of a standard work on bee-culture, and lecturer.

Mr. A. I. Root, of Medina, O., editor of *Gleanings in Bee-Culture*, was also present; also J. H. Martin, a bee-keeper recently from New York, now located in Riverside, Calif., correspondent, and well-known to the bee-keeping fraternity as "Ramblor."

Poor Honey Seasons and their Cause.

Prof. Cook opened the meeting with the question, "Why do we have poor

honey seasons, and what is the remedy for them?"

The discussion of this topic had a wide range, and it was shown that the climatic influences of one season was no guide as to what the next would be. In Ventura County it was stated that an abundance of rain in December, January and February would usually result in a good crop. In San Bernardino, the early rains were not of much account, but late rains were essential. A good rainfall at some portion of the Winter was deemed just as essential for the secretion of honey as for the success in any other department of rural industry.

The convention then resolved itself into an experience meeting, and each man and woman gave their name and the number of colonies, and amount of honey produced. The figures were very interesting, showing that, in spite of the cry of a poor season, many tons of honey were shipped from Southern California, and that San Bernardino County was not behind other counties in the tons gathered.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

The meeting was called to order by Mr. Abbott, of Pasadena, who was in the chair.

Bees and Grapes.

The first topic for discussion was, "Do bees bite through the skin of the grape?"

Prof. Cook led the question with remarks upon the mouth parts of insects, and was willing to stake his reputation as an entomologist upon the statement that the honey-bee is structurally unable to bite the smooth skin of the grape. The honey-bee, as a busy fertilizer of the different fruit blossoms, is practically the fruit-grower's best friend. Experiments at the Michigan Agricultural College had demonstrated this over and over again. Thin cheese-cloth was tied over a limb of various fruit trees, upon which were a hundred or more blossoms, and being deprived of the visits of the bee, there was no fruit, while other positions to which the bees had access were loaded with fruit.

In the discussion which followed, it was shown that at least two-thirds of the bee-keepers present were also fruit growers, and where grapes or berries were picked in season, there was but little danger of damage. It was also demonstrated by Prof. Cook, Mr. Corey,

and Mr. Keeney, that the California linnet and the yellow jacket would puncture the grape; after the puncture was made, the bees were ready to rush in in great numbers and suck the juice, and receive the cursing that was really due to the real mischief-makers.

In grape drying it was sometimes necessary to cover the grapes with cheese-cloth, but even then it was only the imperfect grapes that were destroyed.

Mr. Root raised the question of priority of the occupation of the field by the bee-keepers, and claimed that this right should be respected by the fruit-men. Sometimes the question assumes a vexed tone between fruit-men and bee-keepers, but a little reasonable forbearance from both sides would result in great benefit.

It is very evident that a country destitute of bees to fertilize the fruit blossoms, would either be abandoned as a fruit country, or bees obtained to cause it to produce again.

The Spraying of Fruit Trees.

The next subject taken up was the spraying of fruit trees for the destruction of the codling moth.

Prof. Cook gave the result of several interesting experiments. London purple or Paris green (1 pound to 200 gallons of water, and even so diluted as 400 gallons of water), when sprayed upon trees in full bloom, had the effect of killing bees, and even the young bees in the hive. It is also useless to spray trees while the tree is in full bloom, for the moth does not lay the egg in the embryo fruit until the blossom falls. The proper time for spraying is just as the fruit is forming. A rain or a strong wind upon the sprayed blossom will render the spraying inoperative.

The effect of diluted Paris green, as used for spraying trees, had been tried upon sheep, hogs and horses, and without bad results.

Best Bees for Honey Gathering.

The next discussion was upon the best race of bees for honey gathering.

A general discussion ensued, and resulted in the fact that a cross between the Italian and black bee, as a hybrid, was the best honey producer. The black bees were credited with capping their honey the whitest, and some preferred them on this account, as it made a No. 1 product. For extracted-honey the hybrid was the favorite.

The new races—Carniolans, and later the Punics—had not been tried sufficiently for a statement of their value.

Mr. F. H. Hunt raised the question of the vindictive nature of California bees, claiming that they were harder to control than the Eastern bees. He was sustained in this opinion by Mr. Corey, but opposed by Mr. McIntyre and others. It was claimed that a touch of Cyprian blood, or a too rapid and rough handling produced the vindictiveness.

Foul-Brood Among Bees.

The question of foul-brood—a disease dreaded by bee-keepers—was taken up.

Prof. Cook gave much interesting information. The bee-keeper was warned to be very careful in exposing any honey from a colony having foul-brood, as the spores were thus carried from hive to hive whenever the bees, from any reason, had access to it. It had been known to be given to apiaries from leaking packages on freight cars.

To cure a colony having foul-brood, the bees should be run into an empty hive, or a hive having only foundation, the tainted hive being thoroughly boiled in water for 5 or 10 minutes.

EVENING SESSION.

The convention opened with Mr. Abbott in the chair.

Comb-Honey vs. Extracted-Honey.

Mr. Romley suggested for discussion the relative profits or merits in the production of comb or extracted-honey.

Mr. Mellen—Extracted-honey, if off color or taste, can be sold for many purposes; while comb-honey is much more attractive, off color and taste cannot be produced cheap enough to sell at a low price. If of good flavor, amber honey can be sold readily in the comb. One of his colonies produced over 400 pounds of comb-honey. His apiary is in Acton, Soledad Canyon. He was in favor of comb-honey production every time.

Mr. McIntyre tiered up supers as far as possible in running for extracted-honey, or preferred to extract often. He extracted as often as every eight days, and even as often as every five days, or as often as the bees would fill the combs. He preferred extracted-honey on account of the ease in shipping it to market.

Mr. Corey produced comb-honey for four years, and had produced 100 pounds of extracted-honey to 40 pounds of comb-honey. This comb-honey was stored in Harbison boxes, but he pre-

ferred to produce extracted-honey. He advised a mixed production.

Mr. Mellen had made a hive to suit himself, about square. Another gentleman had made the same kind of hive.

Size of Sections Preferred.

"What sized sections do you prefer?" was next asked.

Mr. Root said he was the first to introduce the 1-pound section, and was denounced by New York bee-keepers, but afterward they apologized to him and adopted the 1-pound section—4¼-x4¼-x2 inches.

The point brought out was that comb-honey sold in retail by the section.

To make combs straight, separators are now used.

Mr. Mellen thinks that the 1½-inch wide section sells better than the 7 to the foot section, because it weighs a full pound, while a smaller section is short weight.

Mr. Root said that Mr. Heddon originated the light weight section.

Mr. Hart sells his honey in 7 to foot sections, and when used without separators, they weigh a pound each.

Mr. Hunt used 7 to foot, used without separators, and thinks that honey should be sold by the section.

Mr. Root said they sold honey in Denver in sections at 15, 20, 25 and 30 cents per pound, and sold many tons from wagons which run as regular as a milk wagon.

Mr. Hillier uses 7 to foot sections, and gets a pound in each. He stamps his name on the packages, and sells his honey before it is taken from the hive.

Removing Supers in the Fall.

The next question was, "Is it desirable to remove supers in the Fall?"

"Not in California," was the reply by several.

Mr. Romley believed it best to take them off, and keep the bees in the lower part of the hive, as the bees breed up faster in the Spring.

Mr. McIntyre preferred to keep the supers on to prevent the ravages of the moth, which destroy combs in this climate if not protected.

Mr. Corey fumigated the super combs to prevent destruction by moth.

Building up Colonies in Spring.

"What is the best way to build up colonies in the Spring to secure a honey crop?" was next asked.

Mr. Mellen—If the hive is too full of honey, extract the honey, and give the bees empty combs in the brood-nest, thus giving the queen plenty of room.

Mr. Root had known bees to starve in June, unless feeding was resorted to.

Prof. Cook believed in stimulating from day to day, but many times it did not pay, especially unless the bees were sure to obtain early honey. It is well to have a quantity of honey in the hive—it is as good as stimulating. It will not pay to "tuck up" bees as we used to. He favored, in a measure, the Heddon hive, on account of its easy manipulation.

Mr. McIntyre believed in plenty of honey as a reserve power.

Mr. Romley believed in plenty of honey, but he was aware that bees consumed more honey in a large hive than in a small one.

Mr. McIntyre said that a partly starved bee would fly out and become chilled, while a bee with plenty of honey in the hive would stay at home and be comfortable.

Mr. McIntyre equalizes colonies by exchanging both brood and honey.

Prof. Cook said that 32 pounds of honey was enough to winter a colony in the coldest climate, and it is well to have more than enough honey.

The President, Mr. Abbott, was obliged to withdraw, and made very appropriate remarks upon harmony, and the instruction from the Eastern visitors. The convention then adjourned until the following day.

Immediately after adjournment, an association was organized in accordance with a call for the purpose of organizing a State association. J. F. McIntyre was chosen temporary chairman, and Mr. Brodbeck Secretary.

A committee of three was appointed to draw up a constitution and by-laws.

SECOND DAY—MORNING SESSION.

At 9:30 a.m., on Jan 7, a large number of ladies and gentleman assembled in the Chamber of Commerce, with Mr. McIntyre in the chair. The report of the committee, and the reading of the constitution was listened to, and the latter was adopted after some debate and modification.

The constitution as adopted is broad and liberal in its provisions, and cannot fail to have an influence throughout the whole State.

The following permanent officers were then elected:

President, J. F. McIntyre, of Fillmore; Secretary, John H. Martin, of Riverside; Treasurer, Geo. W. Brodbeck, of Los Angeles; Vice-President for Ventura County, T. F. Arundell; Vice-President for Los Angeles County, L. T. Romley; Vice-President for San Bernardino County, F. H. Hunt; Vice-President for San Diego County, J. A. Odell; Executive Board, J. W. Strong and Allen Barnett.

A recess was then taken, and an opportunity given for those present to sign the constitution, and become members. The result was extremely gratifying, as 37 gentlemen and 8 ladies signed their names.

Upon motion of Mr. Romley, Prof. Cook and Mr. and Mrs. A. I. Root were unanimously elected honorary members.

AFTERNOON SESSION.

At 2 o'clock p.m. a letter was read from the World's Fair Committee, in relation to the needs of the bee-keepers in the forthcoming World's exhibit in Chicago. The Executive Board was appointed to confer with them.

National Bee-Keepers' Union.

Prof. Cook then presented the claims and benefits of the Bee-Keepers' Union in such a happy and forcible manner that 13 persons handed in their names and their dollars to become members.

Any person can become a member by sending direct to the Union, or through the Secretary of the California State Bee-Keepers' Association.

Prof. Cook then gave a lecture upon the anatomy of the honey-bee, describing the wonderful mechanism of the legs and their office in cleaning the antennæ, and securing pollen; also the functions of the stomach and interior organs.

Mr. Root followed with remarks upon things he had observed while upon his travels, after which the convention adjourned to meet in Los Angeles at a time to be fixed by the Executive Committee.

The sessions throughout were characterized by harmony and good feeling, and the organization of a State association starts out with every assurance of success.

JOHN H. MARTIN, Sec.

A Nice Pocket Dictionary will be given as a premium for only one new subscriber to this JOURNAL, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, 25 cents.

CONVENTION DIRECTORY.*Time and place of meeting.*

1892.
Feb. 4, 5.—Wisconsin State, at Madison, Wis.
Dr. J. W. Vance, Sec., Madison, Wis.
Feb. 10, 11, 12.—Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

[37] In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor, Forest City, Iowa.
SECRETARY—W. Z. Hutchinson, Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon, Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

[38] Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Wintering Well.

Bees are doing well here. We have had but little cold weather this Winter, yet we have had some that was extremely cold. Owing to sickness, our bees suffered for want of care the past season, still they gave us a large increase, and much honey. Most hives have a surplus which should have been taken last Fall. I put 130 colonies into winter quarters, and at present have 124.

T. P. Williamson, my father, died on Jan. 8, 1892, after 6 months of severe suffering, caused by a carbuncle.

ROLLIE C. WILLIAMSON.

Golconda, Ills., Jan. 16, 1892.

Keeping a Diary—Honey-Dew.

My bees did fairly well the past season. We never get large yields, but are pretty sure to get a paying crop every season. If a farmer can add to his income \$100, \$200, or \$300 by keeping bees, and not neglect his farm, he should do so. There is pleasure, excitement and variety in this pursuit, which helps out the monotony of farm life. I intend to keep a diary the coming season, and shall note the system of

management with its failures and successes. The weather will be noted with all its changes. At the end of the season I shall sum up the lessons learned, which will be a good guide for the next season's operations. If I should sell all the honey I produced the past season from 47 colonies, Spring count, it would net me \$300. Please answer the following questions:

1. Did you ever hear or know of honey-dew mixed with good honey, in comb and extracted form, being entered for competition and a prize at a State Fair?

2. Acting as judge, what would you do with this kind of an entry?

3. If this kind of honey is sold in our markets, what grade should it have?

N. P. ASPINWALL.

Harrison, Minn.

[1. No. We never heard of such a thing. Any one of ordinary sense would never attempt to enter honey-dew for competition at a honey show.

2. We should ignore such an entry entirely.

3. The grade of public condemnation.
—Ed.]

Milkweed as a Honey-Plant.

I am very glad to be able to say that the milkweed does not act here in the way described on page 86. I presume the editor has given the correct reason, or reasons, for its not doing so. I have occasionally seen a bee held fast by one foot to the sticky pollen-mass, but have never seen a dead one thus. So I concluded that they all got loose. I have quite often seen them carrying the pollen-masses on their feet; and occasionally have seen quite a lot of them at the entrance to the hive where they had been scraped off. We consider the quality of the honey the best of any; though some do not like it. I wish to correct one error in my last. It was in 1884 instead of 1882, that we had such a good honey season.

C. A. MONTAGUE.

Archie, Mich., Jan. 18, 1892.

Honey Poorly Marketed.

I never saw honey so poorly handled and marketed as here. It is bought at the groceries just as it came from the hive with all the propolis on. Dealers, who seem to think it fine honey, pay 10

cents per pound for it, and then sell it for 15 cents. The consumers do not seem to understand honey, they buy it, and finding it poor stuff, throw it away, and then condemn all kinds of honey. No wonder grocery men say they have all they can handle. Yet, what is to be done? Bee-keepers are too slow to attend conventions, and they even do not read anything on the subject of bees. The honey dealers are too stubborn and conceited to receive advice or instruction regarding honey, so our fine honey has to sell at the same price as the poor grades. The consumers, it seems to me, are the only ones we can reach here, and they should be taught to use the clear white and sweet smelling honey as produced by our best bee-keepers, instead of that which is unsightly and unfit to eat by reason of the propolis all over it. Worthy bee-keepers would then have some encouragement.

S. M. CARLZEN.

Montclair, Colo.

Another Victim of La Grippe.

Baxter C. Griffith, one of our brightest young apiarists has joined the great majority. His illness was short—only eight days, from *La Grippe* followed by pneumonia. The only child of aged parents; the father of five lovely girls, and the owner of a large apiary, with no one left to manage it—all go to make his death a peculiarly sad one. His place in church, in state, in apiculture, and in society, will be hard to fill. He was a bee-keeper of only a few years, but by his untiring efforts, and the knowledge gleaned from his many text books and journals, it is safe to say he was well advanced in the art of bee-keeping. He was a consistent member of the A. R. P. church, and his pastor's loss is hardly second to that of his family. To his bereaved wife we can only tender our sympathy, and point her to Him who does all things well.

A FRIEND.

Pineville, N. C.

Well Pleased About Last Season.

I commenced the last season with 25 colonies of bees, but many were weak and short of stores. In the Spring and Summer they did well, but in the Fall they did nothing. It was too dry. They gathered 550 pounds of honey, and put it into the sections, which I sold at 15 cents per pound; and they increased to 32 colonies, but they are not in the best of condition. I am well pleased with

the results of the season. Last May the little son of one of my neighbors got stung, and it was charged to my bees. Complaint was made to the village authorities that my bees were a nuisance, and I was threatened with a suit for damages. A committee of three of the Village Board waited on me, and as I did not want any trouble, I promised to remove my bees after the season closed, and so the matter rests. There are other bees in the village, but no complaints have been made about them. My bees are now in the cellar. I think of removing them outside of the village in the Spring, if I do not sell them.

J. SEIBOLD.

Homer, Ills.

Bee Paralysis.

I have a strong colony of black bees that seem to be dying very fast, sometimes at the rate of a teacupful in three or four days. They seem to come out of the hive and act as if they had the palsy. They have plenty of good honey, nicely sealed and ripened. Can you explain the cause or remedy, so that I can prevent the ravages of the disease, if it is one? All other bees in this neighborhood are in good condition, and doing well.

J. B. RAMAGE.

Blaine, Wash.

[The following treatment for bee paralysis is recommended by Mr. R. L. Cobb, of Matsqui, B. C. :]

I had a colony very badly affected with it, and the following treatment cured them completely in four or five days: Take a small cotton cloth about 6 inches long, and put on one end of it a few drops of carbolic acid; shove the end into the entrance of the hive, leaving the other end out so that it can be easily withdrawn. Renew the acid night and morning until cured.

Standard Section, Grading Honey, etc.

I have 36 colonies of bees in winter quarters, and they are wintering well. Last Winter the bees wintered so well that I am afraid bee-keepers have been too careless here this Fall, and have not fed the bees, but they will repent when it is too late. I look for a heavy loss of bees here this Winter from starvation. Most of the bee-keepers here have too much other work to take proper care of their bees. All bee-keepers in this vicinity work for comb-honey, and the

dovetailed hive is coming into general use here. I think it is the coming hive on account of its cheapness and strength, as well as its hardness. I am in favor of adopting a standard size of section, and that size to be the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$, and the 7 to the foot. Two widths I believe to be sufficient, and the above sizes seem to suit retailers and consumers in general. We have to suit those who buy our product, as well as ourselves. Of course, there are a great many who would not change, as the cost would be too great, but it would help those that are just starting, or those buying large quantities of hives, to have a standard size of section. The AMERICAN BEE JOURNAL should be taken by every bee-keeper. A person who cannot afford to take it, cannot afford to keep bees. There are many old fogies that keep bees, and that is the reason why honey is so cheap—because they obtain a poor article, and then take whatever they can get for it. I think that having honey graded is a good thing.

WILLARD A. SAUL.

Denison, Iowa, Jan. 16, 1892.

Experimenting with Albino Queens.

On Aug. 14, 1891, I introduced five Albino queens in my apiary. Three of the queens that I superseded were less than four months old; two were over two years old—daughters from the old queens, and disappeared by Oct. 15. From the three young queens there were plenty of daughters that were put into winter quarters with the Albino colonies. Is it possible that bees from a young queen will live longer than those from an old queen? In the above case such is the fact. As I noticed this by changing queens, I will experiment with the same next year, as I am breeding Albinos and Italians. If any person wishes to experiment with the same, he can do so with Italians, hybrids and blacks, and from my observation of the facts, I think it is worth the experiment.

THOS. JOHNSON.

Coon Rapids, Iowa.

The Mating of Queens.

I want to know how far virgin queens leave the hive to meet the drones. From my experience with young queens the past Summer, fertilization takes place near the home of the queen. In my locality no one has Italian bees but myself. There are black bees all around me, from one-half mile to further away.

I also had one colony of black bees in my yard. Under the above circumstances all my young Italian queens were purely mated except two. This proves to me that young queens mate near the hive, or else the Italian drones are more active, stronger, and ever on the alert. But there is something connected with the above that puzzles me, and that is, I find that a good many young queens owned by the neighbors as far as a mile away, mated with my Italian drones, right where there was nothing but black drones. Will some one please explain in the AMERICAN BEE JOURNAL why a large percentage of my neighbors' young queens mated with my Italian drones? Only two of my young Italian queens were met by black drones when they were around in such abundance.

JOHN D. A. FISHER.

Woodside, N. C.

Colonies Short of Winter Stores.

My bees are in the 2-story simplicity hives. They gathered honey-dew very fast the past season, filling both stories. I extracted all in the upper stories, thinking that I would get a lighter quality of honey, but I was mistaken, as it was all dark. The honey from asters was but a little lighter than the rest, and but little different in the taste. The honey is not unpleasant to eat—I prefer it to last year's crop. When I took the frames out of the upper stories, I did not lift up any of the lower frames, but took it for granted that they had an abundance of honey to winter, as all, or nearly all, had the combs at the top of the frames sealed over. As I winter my bees on the summer stands, and just before the weather becomes severe I commenced packing them, and then for the first time I discovered they were short of stores. I commenced feeding, but it was too late to save all. I have lots of frames full of honey, but cannot get it to the bees. The weather is so cold that I have already lost 4 colonies. I had 45. They gathered between 1,500 and 2,000 pounds of honey the past season.

JOSEPH DUNBARR.

Scott's Mills, Ills., Jan. 18, 1892.

Winter Problem in bee-keeping;

by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

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Send us one new subscription, with \$1.00, and we will present you with a nice Pocket Dictionary.

The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	\$1 00
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As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for \$1.35. Both of these and Gleanings in Bee Culture, for one year, for \$2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Jan. 23.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6¼@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Jan. 22.—Demand is limited, and supply sufficient. No demand for 2-B sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5¼@6; Southern, 65@70c per gal. Beeswax, scarce and firm, at 26@28c.

HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Jan. 23.—Demand and supply are fair. We quote: White comb, 1-lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax is in light supply, and demand good, at 23@26c.

CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Jan. 22.—Demand is good for family use, but very slow from manufacturers. Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.

C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Jan. 23.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-lb., 14c; do 2-lb., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7½c; buckwheat, 5¼@6c. Beeswax, in fair demand, with adequate supply, 26@27c.

CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Jan. 23.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.

HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Jan. 23.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.

M. H. HUNT, Bell Branch, Mich.

CHICAGO, Jan. 23.—Demand good and supply sufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.

J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Jan. 23.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7¼@8c; dark, 6@6½c. Beeswax, 23@28c.

A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Jan. 21.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5¼@6½c. Beeswax, in light supply and good demand, at 23@25c.

SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, MINN., Jan. 22.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.

STEWART & ELLIOTT.

CHICAGO, Jan. 23.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Jan. 21.—Demand is light, supply ample. We quote: 1-lb. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.

BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Jan. 22.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted—Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.

H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan. 22.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6¼@7c; buckwheat in demand at 5@6c. Beeswax in fair demand at 26@28c.

F. I. SAGE & SON, 183 Reade St.

NEW YORK, Jan. 23.—Demand moderate, and supply reduced, with no more glassed 1-lb. nor paper cartons, 1-lb. We quote: Comb, 1-lb., 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5¼@6½c; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.

F. G. STROHMEYER & CO., 122 Water St.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

Calvert's No. 1 Phenol, mentioned in *Cheshire's Pamphlet* on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your *BEE JOURNALS* ready for reference. We will mail you one for 50 cents.

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For 16 years Tillinghast's Puget Sound Cabbage, Cauliflower and Celery Seeds have been gaining in popularity. The most extensive growers all over the Union now consider them the best in the world. A catalogue, giving full particulars regarding them, will be sent free to any one interested. When writing for it, enclose 20 cents in silver or postage stamps, and we will also send "How to Grow CABBAGE AND CELERY," a book worth its weight in gold to any grower who has never read it. Address

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We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

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and Langstroth Revised (Dadant).....	3 00....	2 75
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Orange Judd Farmer.....	2 00....	1 75
Farm, Field and Stockman.....	2 00....	1 75
Prairie Farmer.....	2 00....	1 75
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Rural New Yorker.....	3 00....	2 25
Nebraska Bee-Keeper.....	1 50....	1 35

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If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely* introduce Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us \$1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Trip-Hammer advertising is the kind that creates industries that make us marvel at their magnitude. How long would it take to shape the hot iron if a stroke was given this week and another six months hence? Constant pounding is what does the business.—
W. F. COOK.

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The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the *BEE JOURNAL* (with \$1.00 to pay for the same), or 2 subscribers to the *HOME JOURNAL* may be sent instead of one for the *BEE JOURNAL*.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundations.
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